

REMARKS

Claims 1-5, 9, 11, 13-18, 23, 25-29, 34-39, 42, 43, and 45-48 are pending in the present application. In view of the following remarks, the Applicant requests the Examiner's thoughtful reconsideration.

Title Objection: The MPEP states:

Where the title is not ***descriptive of the invention claimed***, the examiner should require the substitution of a new title that is clearly indicative of the invention to which the claims are directed.

MPEP 606.01 (emphasis added). The preamble of the independent claims recites "establishing a baseline signal for application to an actuator within an optical disk drive." To ensure that the title is descriptive of the invention claimed, the Title has been amended accordingly.

Claim Objections: The Examiner objected to Claims 45-48 noting typographical errors. Claims 45-48 have been amended to address the Examiner's concerns.

Claim Rejections – 35 USC §102: The Examiner rejected Claims 45-48 under §102 as being anticipated by USPN 5,808,983 issued to Tsutsui.

Claims 45 is directed to a system for establishing a baseline signal for application to an actuator within an optical disk drive to focus optics on an optical disk within the optical disk drive. The system includes a baseline actuator positioning routine that is configured to do the following:

1. apply actuator control signals to the actuator to step the actuator through a full range of focus

2. obtain a SUM signal at each step, the SUM signal being a sum of signals received from a plurality of focus sensors;
3. identify one of the obtained SUM signals; and
4. set the baseline actuator control signal according an applied actuator control signal which resulted in the identified one of the obtained SUM signals.

The Examiner asserted that Tsutsui, col. 10, lines 34-50 teaches applying actuator control signals to an actuator to step the actuator through a full range of focus. That passage is reproduced below:

While, in the description above, an optimum point (maximum value) is detected by the so-called mountain-climbing method, the optimum point may be determined otherwise in such a manner as illustrated, for example, in FIG. 7. In particular, in the method illustrated in FIG. 7, the offset signal is successively varied by α to a sample the tracking error signal for the entire period from S_0 to S_n first. Then, in this instance, the offset signal which corresponds to a point of a sudden ascending variation of the tracking error signal obtained by the sampling is detected as Sm_1 whereas the offset signal which corresponds to a point of a sudden descending variation of the tracking error signal is detected as Sm_2 . Then, a middle point between the variation points Sm_1 and Sm_2 is determined as an optimum point (adjustment point).

Tsutsui, col. 10, lines 34-50.

To summarize, the cited passage discusses successfully varying an offset signal for an entire period identified as S_0 to S_n . While doing so, the offset signals corresponding to a sudden ascending and descending variation of a tracking error signal are identified. The middle point between those two points is then identified.

Claim 1 recites applying actuator control signals to the actuator to step the actuator through a full range of focus. Tsutsui discusses varying an offset signal for an entire period identified as S_0 to S_n . An offset signal is a signal that is added to the focusing error signal so that an optimum focusing condition can be obtained. Tsutsui, col. 1, line 60-65. The variance of an offset signal for an entire period does not step an

actuator through a **full range of focus**. Consequently, Tsutsui does not teach or suggest teaches applying actuator control signals to an actuator to step the actuator through a full range of focus.

The Examiner asserts that Tsutsui, col. 14, lines 25-45 teaches obtain a SUM signal at each step, the SUM signal being a sum of signals received from a plurality of focus sensors. In particular, the Examiner equates the Tsutsui's RF signal with the recited SUM signal. Even if this a proper comparison, Tsutsui mentions nothing of obtaining such an RF signal at **each step**. Remember, Claim 1 recites applying actuator control signals to step an actuator through a full range of focus – an act not taught by Tsutsui. Because Tsutsui does not teach stepping an actuator through a full range of focus, logic dictates that Tsutsui also does not teach obtaining signal of any particular type at **each step**.

For at least these reasons, Claim 45 and Claims 1-5, 9, 11, and 13 which depend from Claim 45 are patentable over Tsutsui.

Claims 46 recites a processor-readable medium comprising processor-executable instructions for focusing optics within an optical disk drive. The processor-executable instructions include instructions for the following:

1. applying actuator control signals to the actuator to step the actuator through a full range of focus
2. obtaining a SUM signal at each step, the SUM signal being a sum of signals received from a plurality of focus sensors;
3. identifying one of the obtained SUM signals; and
4. setting the baseline actuator control signal according an applied actuator control signal which resulted in the identified one of the obtained SUM signals.

As with Claim 1, Tsutsui does not teach or suggest (a) applying actuator control signals to the actuator to step the actuator through a full range of focus or (b) obtaining a SUM signal at each step. For at least these reasons, Claim 46 is

patentable over the cited references as are Claims 14-18, and 23 which depend from Claim 46.

Claims 47 recites a method of establishing a baseline signal for application to an actuator within an optical disk drive to focus optics on an optical disk within the optical disk drive. The method includes the following:

1. applying actuator control signals to the actuator to step the actuator through a full range of focus;
2. obtaining a SUM signal at each step, the SUM signal being a sum of signals received from a plurality of focus sensors;
3. identifying one of the obtained SUM signals;
4. setting the baseline actuator control signal according an applied actuator control signal which resulted in the identified one the obtained SUM signals.

As with Claim 1, Tsutsui does not teach or suggest (a) applying actuator control signals to the actuator to step the actuator through a full range of focus or (b) obtaining a SUM signal at each step. For at least these reasons, Claim 47 is patentable over the cited references as are Claims 25-29 and 34 which depend from Claim 47.

Claims 48 is directed to a system for establishing a baseline signal for application to an actuator within an optical disk drive to focus optics on an optical disk within an optical disk drive, the system includes various means for implementing the method of Claims 47. For at least the same reasons Claim 47 is patentable so are Claim 48 and Claims 35-39 and 43 which depend from Claim 48.

Claim Rejections – 35 USC §103: The Examiner rejected Claim 13 under §103 as being unpatentable over Tsutsui in view of USPN 5,164,932 issued to Fennema. Claim 13 depends from Claim 45 and is patentable based at least in part on that dependency.

Claim Rejections – 35 USC §103: The Examiner rejected Claims 1, 4, 5, 14, 17, 18, 23, 25, 28, 29, 35, 38, 39, and 43 under §103 as being unpatentable over USPN 5,742,573 issued to Hajjar in view of Tsutsui

Claims 1, 4, and 5 depend from Claim 1 and are patentable based at least in part on that dependency.

Claims 14, 17, 18 and 23 depend from Claim 46 and are patentable based at least in part on that dependency.

Claims 25, 28, and 29 depend from Claim 47 and are patentable based at least in part on that dependency.

Claims 35, 38, 39, and 43 depend from Claim 48 and are patentable based at least in part on that dependency.

Claim Rejections – 35 USC §103: The Examiner rejected Claims 2, 3, 15, 16, 26, 27, 36, and 37 under §103 as being unpatentable over Hajjar in view of Tsutsui and in further view of USPN 5,477,333 issued to Shoda.

Claims 2, 3, and 5 depend from Claim 45 and are patentable over the cited references based at least on their dependence from Claim 45.

Claim 16 depends from Claim 46 and is patentable over the cited references based at least on its dependence from Claim 46.

Claims 26 and 27 depend from Claim 47 and are patentable over the cited references based at least on their dependence from Claim 47.

Claims 36 and 37 depend from Claim 48 and are patentable over the cited references based at least on their dependence from Claim 48.

Claim Rejections – 35 USC §103: The Examiner rejected Claims 1, 4, 9, 14, 17, 25, 28, 34, 35, and 38 as being unpatentable over Tsutsui in view of US Pub 2002/0089906 to Faucett.

Claims 1, 4, and 9 depend from Claim 1 and are patentable based at least in part on that dependency.

Claims 14 and 17 depend from Claim 46 and are patentable based at least in part on that dependency.

Claims 25, 28, and 34 depend from Claim 47 and are patentable based at least in part on that dependency.

Claims 35 and 38 depend from Claim 48 and are patentable based at least in part on that dependency.

Conclusion: In view of the foregoing remarks, the Applicant respectfully submits that the pending claims are in condition for allowance. Consequently, early and favorable action allowing these claims and passing the application to issue is earnestly solicited. The foregoing is believed to be a complete response to the outstanding Office Action.

Respectfully submitted,
Darwin Mitchel Hanks

By /Jack H. McKinney/
Jack H. McKinney
Reg. No. 45,685

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